

## WHAT IS CLAIMED IS:

1       1.     An information processing terminal, comprising:  
2             a first processing section for producing transfer  
3     data to be transferred to the outside and a data transfer  
4     descriptor for requesting transfer of the transfer data;  
5     and  
6             a second processing section for transferring the  
7     transfer data produced by said first processing section  
8     in accordance with the data transfer descriptor received  
9     from said first processing section;  
10            said second processing section including:  
11            a buffer capable of temporarily storing the transfer  
12    data;  
13            a merging section capable of merging first transfer  
14    data produced by said first processing section and stored  
15    in advance in said buffer and second transfer data produced  
16    separately from the first transfer data by said first  
17    processing section; and  
18            a controlling section for controlling said merging  
19    section to merge the first and second transfer data in  
20    accordance with the data transfer descriptor received from  
21    said first processing section and performing transfer  
22    control of the merged transfer data.

1       2.     The information processing terminal as claimed in  
2     claim 1, wherein said first processing section describes,

3       in the data transfer descriptor to be produced to request  
4       transfer of the second transfer data to said second  
5       processing section, information of a storage source of  
6       the second transfer data and describes merge instruction  
7       information for instruction to merge the first and second  
8       transfer data, and then notifies said second processing  
9       section of the data transfer descriptor.

1       3.     The information processing terminal as claimed in  
2       claim 2, wherein, in said second processing section, said  
3       controlling section refers to the data transfer descriptor  
4       to read out the second transfer data based on the information  
5       of the storage source of the transfer data and reads out  
6       the first transfer data from said buffer based on the merge  
7       instruction information, and then controls said merging  
8       section to merge the first and second transfer data read  
9       out.

1       4.     The information processing terminal as claimed in  
2       claim 1, wherein the first transfer data is main data to  
3       be transferred to the outside, and the second transfer  
4       data is a header part including information of a transfer  
5       destination of the main data and to be added to the main  
6       data.

1       5.     The information processing terminal as claimed in  
2       claim 1, wherein, where the same main data is to be

3 transferred to a plurality of transfer destinations, said  
4 first processing section produces and writes, for each  
5 of the transfer destinations, the main data as the first  
6 transfer data into said buffer, and produces the header  
7 part as the second transfer data including the information  
8 of the transfer destination and to be added to the main  
9 data and the data transfer descriptor for requesting the  
10 merging of the header part and the main data and the transfer  
11 of the merged data and notifies said second processing  
12 section of the data transfer descriptor.

1 6. The information processing terminal as claimed in  
2 claim 1, wherein said first processing section produces  
3 a buffer writing descriptor for requesting writing of the  
4 first transfer data into said buffer to said second  
5 processing section and notifies said second processing  
6 section of the buffer writing descriptor, and, in said  
7 second processing section, said controlling section reads  
8 out and writes the first transfer data into said buffer  
9 in accordance with the buffer writing descriptor received  
10 from said first processing section.

1 7. The information processing terminal as claimed in  
2 claim 6, wherein said first processing section produces  
3 the buffer writing descriptor in the same format as that  
4 of the data transfer descriptor and describes the  
5 information of the storage source of the first transfer

6 data and buffer writing instruction information for  
7 instruction to write the first transfer data into said  
8 buffer in the buffer writing descriptor, and then notifies  
9 said second processing section of the buffer writing  
10 descriptor.

1 8. The information processing terminal as claimed in  
2 claim 7, wherein, in said second processing section, said  
3 controlling section refers to the buffer writing  
4 descriptor to read out the first transfer data based on  
5 the information of the storage source included in the first  
6 transfer data and writes the first transfer data read out  
7 into said buffer.

1 9. A transfer processing apparatus for transferring  
2 transfer data produced by a processing section in  
3 accordance with a data transfer descriptor received from  
4 said processing section, comprising:  
5 a buffer capable of temporarily storing the transfer  
6 data;  
7 a merging section capable of merging first transfer  
8 data produced by said processing section and stored in  
9 advance in said buffer and second transfer data produced  
10 separately from the first transfer data by said processing  
11 section; and  
12 a controlling section for controlling said merging  
13 section to merge the first and second transfer data in

14       accordance with the data transfer descriptor and  
15       performing transfer control of the merged transfer data.

1       10.    The transfer processing apparatus as claimed in claim  
2       9, wherein a notification of a data transfer descriptor  
3       in which information of a storage source of the second  
4       transfer data and merging instruction information for  
5       instruction for merging of the first and second transfer  
6       data are described is issued as the data transfer descriptor  
7       from said processing section.

1       11.    The transfer processing apparatus as claimed in claim  
2       10, wherein said controlling section refers to the data  
3       transfer descriptor to read out the second transfer data  
4       based on the information of the storage source of the second  
5       transfer data and read out the first transfer data from  
6       said buffer based on the merging instruction information,  
7       and then controls said merging section to merge the first  
8       and second transfer data read out.

1       12.    The transfer processing apparatus as claimed in claim  
2       9, wherein the first transfer data is main data to be  
3       transferred to the outside, and the second transfer data  
4       is a header part including information of a transfer  
5       destination of the main data and to be added to the main  
6       data.

1     13.    The transfer processing apparatus as claimed in claim  
2     9, wherein, in order to transfer the same main data to  
3     a plurality of transfer destinations, the main data  
4     produced by said processing section is written as the first  
5     transfer data into said buffer, and a notification of a  
6     data transfer descriptor for requesting merging of the  
7     header part as the second transfer data produced for each  
8     of the transfer destinations by said processing section  
9     with the main data and transferring of the merged data  
10    is received from said processing section.

1     14.    The transfer processing apparatus as claimed in claim  
2     9, wherein a notification of a buffer writing descriptor  
3     for requesting writing of the first transfer data into  
4     said buffer is received from said processing section, and  
5     said controlling section reads out and writes the first  
6     transfer data into said buffer in accordance with the buffer  
7     writing descriptor received from said processing section.

1     15.    The transfer processing apparatus as claimed in claim  
2     14, wherein a notification of a buffer writing descriptor  
3     in which the information of the storage source of the first  
4     transfer data and buffer writing instruction information  
5     for instruction for writing of the first transfer data  
6     into said buffer are described in the same format as that  
7     of the data transfer descriptor is received as the buffer  
8     writing descriptor from said processing section.

1     16.     The transfer processing apparatus as claimed in claim  
2     15, wherein said controlling section refers to the buffer  
3     writing descriptor to read out the first transfer data  
4     based on the information of the storage source included  
5     in the first transfer data and writes the first transfer  
6     data read out into said buffer.